

Claim Amendments

Please enter the following amendments.

1. (currently amended) A method for producing a stably transformed chimeric dicotyledonous plant having transgenic root tissue, the method comprising the steps of:
obtaining an stem or hypocotyl explant from a selected dicotyledonous plant species;
transforming the stem or hypocotyl explant with *Agrobacterium rhizogenes* containing an exogenous nucleic acid sequence capable of being transferred to the explant;
culturing the transformed explant in a root initiating media to produce transformed roots; and
transferring the transformed roots to soil or a hydroponic environment to produce the chimeric dicotyledonous plant having transformed roots and wild type shoots, stems and leaves.
2. (canceled)
3. (previously presented) The method of claim 1 wherein the explant is a hypocotyl having a cut end below the cotyledon.
4. (original) The method of claim 3 wherein the cut end of the hypocotyl is contacted with the *Agrobacterium rhizogenes*.
5. (original) The method of claim 4 wherein the *Agrobacterium rhizogenes* is strain K599.
6. (canceled)
7. (currently amended) The method of claim 61 wherein the dicotyledonous plant is soybean, potato, or tomato.
8. (previously presented) The method of claim 4 wherein transformed roots are initiated in the hypocotyl by placing the end of the hypocotyl contacted with the *Agrobacterium rhizogenes* in a media containing ¼ strength Murashige and Skoog media.
9. (original) The method of claim 8 wherein the media further comprises a selectable agent.
10. (original) The method of claim 9 wherein the selectable agent is kanamycin.
11. (previously presented) The method of claim 10 wherein the concentration of kanamycin in the media is no more than 50 mg/L.
12. (withdrawn) A method for testing a genetic element for functionality in a plant, comprising the steps of:
obtaining an explant;
inoculating the explant with *Agrobacterium rhizogenes* containing an exogenous genetic element capable of being transferred to the explant;
culturing the inoculated explant in a manner permitting transgenic root development;

producing a stable chimeric plant with transgenic root tissue;

analyzing the transgenic root tissue for the exogenous genetic element.

13. (withdrawn) The method of claim 12 wherein the exogenous genetic element is a gene that confers resistance to plant pathogens.

14. (withdrawn) The method of claim 12 wherein the exogenous genetic element is a gene that confers an agronomic trait to the plant.

15. (withdrawn) The method of claim 12 wherein the exogenous genetic element is a gene that is involved in the enzymatic or metabolic activity of the plant.

16. (withdrawn) The method of claim 12 wherein the exogenous genetic element is a promoter sequence.

17. (withdrawn) The method of claim 12 wherein the explant is selected from the group consisting of stem, hypocotyl or root tissue.

18. (withdrawn) The method of claim 12 wherein the explant is a hypocotyl providing a cut end below the cotyledon.

19. (withdrawn) The method of claim 18 wherein the cut end of the hypocotyl is contacted with the *Agrobacterium rhizogenes*.

20. (withdrawn) The method of claim 19 wherein the *Agrobacterium rhizogenes* is strain K599.

21. (withdrawn) The method of claim 12 wherein the explant is obtained from a dicotyledonous plant.

22. (withdrawn) The method of claim 21 wherein the plant is soybean, potato, or tomato.

23. (withdrawn) The method of claim 19 wherein transgenic root development is initiated in the inoculated hypocotyl by placing the inoculated hypocotyl region in a media containing ¼ MS.

24. (withdrawn) The method of claim 23 wherein the media further comprises a selectable agent.

25. (withdrawn) The method of claim 24 wherein the selectable agent is kanamycin.

26. (withdrawn) The method of claim 25 wherein the concentration of kanamycin in the media is no more than about 50 mg/L.